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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO.       |
|--|-------------|----------------------|--------------------------|------------------------|
| 10/065,733   | 11/13/2002  | Eric Heller          | 201-0767                 | 6173                   |
| 22844 7590 05/31/2007<br>FORD GLOBAL TECHNOLOGIES, LLC<br>FAIRLANE PLAZA SOUTH, SUITE 800<br>330 TOWN CENTER DRIVE<br>DEARBORN, MI 48126 |             |                      | EXAMINER<br>PATR, JUSTIN |                        |
|  |             |                      | ART UNIT<br>3623         | PAPER NUMBER           |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                                  |                               |  |
|------------------------------|----------------------------------|-------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/065,733    | Applicant(s)<br>HELLER ET AL. |  |
|                              | Examiner<br>Justin M. Pats, Esq. | Art Unit<br>3623              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11-13-02.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Notice to Applicant***

1. The following is a non-final, first office action responsive to applicant's communication of 11/13/02. Claims 1-15 are pending in this application and have been rejected below. Priority claimed to provisional application 60/337340, dated 11/13/2001 is hereby deemed effective.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-9, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins et al., U.S. Patent No. 6,038,517 [hereinafter Dobbins] (*see* attached PTO-892, reference A) in view of Ando et al., U.S. Patent App. No. 2002/0082902 [hereinafter Ando]. (*see* attached PTO-892, reference B)

4. As per claim 1, Dobbins teaches a method for planning the timing of a feature introduction of a product comprising: selecting a feature of a product for which a feature introduction timing plan is to be calculated (col. 3, lines 53-56, "Practically any product which may be subjected to a product reliability test may be tested consistent with the invention. However, for the purposes of illustration, the test of a computer software product will be described."); estimating a first-to-market timing for said feature (Fig. 8. The area of the graph below the estimated "accept" line represents that the product has a small enough number of failures so as to deem the product acceptable and ready to enter into the market); selecting a product attribute leadership strategy (PALS) for said feature, said PALS based on a desired competitive market timing (col. 2, lines 32-40, "The present invention principally operates by generating with a computer a current confidence level from accumulated runtime and failure data of a product subjected to product reliability testing[, which] may be generated from time to time

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during testing and prior to verifying the product has met its reliability goal with a sufficient level of confidence to provide a quantified risk assessment of whether the product will ultimately meet this reliability goal.”); retrieving a PALS adjustment factor associated with said PALS from a PALS adjustment factor database (col. 7, lines 20–39, illustrating the variable  $k$ , which represents an adjustable discrimination ratio; col. 1, lines 43–53, “In addition, accept and reject lines are manually calculated based upon a desired reliability goal, a desired confidence level that the goal has been met, and a discrimination ratio that is related to the power of the test to detect various levels of reliability (e.g., a test with discrimination ratio of 2 is designed to accept product with  $MTBF=M$  and reject product with  $MTBF=M/2$  with high probability). The accept and reject lines provide instantaneous values of acceptable and unacceptable numbers of failures for any given amount of runtime.”); and calculating said feature introduction timing plan for said feature based on said PALS adjustment factor and said first-to-market timing (Figs. 7–8; col. 6, line 47—col. 8, line 33; col. 1, lines 14–23, “The development process in any organization typically has the competing concerns of schedule and quality. On the one hand, in many industries such as the computer industry, short product life cycles and frequent advances in technology necessitate short product development cycles under a “first to market” strategy. On the other hand, there is a need to make a product “right the first time”, as research shows that on the average external failure costs are often an order of magnitude more expensive than the corresponding internal costs for finding the same problem prior to release of the product.” Thus, first-to-market timing is a critical consideration in Dobbin’s invention used to aid the development and deployment of products.)

Dobbins does not explicitly teach this method taking into consideration a product

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segment, feature type, and associate adjustment factor. Ando teaches these aspects in calculating a prediction of sales volume or market share at the launch of a new product into the market (*see* Ando, pg. 3, ¶ 0022). Specifically, Ando teaches selecting a product segment for said feature (Ando, Fig. 6, see the different rows representing segments, such as price, quality, design-color, brand power); selecting one of a plurality of feature types for said feature (*id.*, see columns indicating existing products F001–F005, and New Product); and retrieving a segment adjustment factor associated with said product segment and said one of said plurality of feature types from a segment adjustment factor database (*id.*, see factor values entered with respect to each of the above limitations).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Dobbins to include the teachings of Ando. First, “how large a share (a market share) would be and how large the production should be based on what level of a predictive volume, i.e., a quantity of the initial launch (an initial input) is an issue for the launch of a new product into the market.” (pg. 1, ¶ 0002) Ando’s method predicts this value, thus enhancing a company’s chances “to quickly provide excellent products to a market at low prices”. (*Id.*) Furthermore, predicting these values, using product segment and feature type information, is materially pertinent to the issue of whether the time is right to launch a product because a product that projects high sales values is likely more marketable than one with lower projections.

5. As per claim 2, Dobbins in view of Ando teaches the method of claim 1 as described above. Dobbins further teaches the step of determining an engineering resource allocation based

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on said feature introduction timing plan (Dobbins, col. 1, line 64—col.2, line 3. When a reliability goal is met with a certain degree of confidence, Ando's invention determines that product testing may be completed and the product can be put into the market).

6. As per claim 3, Dobbins in view of Ando teaches the method of claim 1 as described above. Ando further teaches wherein said selecting said PALS is based on an expected sales volume or market share for said product (Ando, pg. 1, ¶ 0008). From an expected sales volume, one could readily calculate expected profits by deducting relevant expenses. It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Dobbins to include the teachings of Ando (*see* discussion *supra* ¶ 4).

7. As per claim 5, Dobbins in view of Ando teaches the method of claim 1 as described above. Dobbins in view of Ando does not explicitly teach wherein said product comprises an automobile. However, this purported limitation constitutes nonfunctional descriptive material and should not be given patentable weight. The type of product analyzed amounts to mere labeling of data and does not functionally alter the method of planning the timing of a feature introduction of a product. See MPEP 2106.01 [R-5]. Nonfunctional descriptive material cannot lend patentability to an invention that would otherwise have been anticipated by the prior art. When descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability (*see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994)). Thus, claim 5 fails to further limit the invention claimed in

claim 1 and is rejected under the same logic as described above.

8. As per claim 6, Dobbins in view of Ando teaches the method of claim 1 as described above. Dobbins further teaches wherein said PALS adjustment factor comprises a time period (Dobbins, col. 7, line 20—col. 8, line 33; Fig. 8. Discrimination ratio  $k$  can be solved for in terms of time  $t$ , said time period evident in Fig. 8).

9. As per claim 7, Dobbins in view of Ando teaches the method of claim 1 as described above. Dobbins further teaches wherein said calculating said feature introduction timing plan is performed by a computer program (Dobbins, Fig. 1, ref. 30, showing the timing plan on the display caused by executing the computer readable medium that holds the program or software).

10. As per claim 8, Dobbins in view of Ando teaches the method of claim 1 as described above. Ando further teaches the step of comparing said feature introduction timing plan with a current product timing plan (Ando, Figs. 8–9; comparing a new product timing plan with those of existing products). It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Dobbins to include the teachings of Ando because Ando's "invention allow[s] a model in the structured neural network to receive sales volumes or shares of a plurality of existing products upon their market launch, for example, and evaluations made by more than one people on those existing products, and to learn about relationships between these, whereby a sales volume or market share of a new product at the launch into a market is predicted." (Ando, pg. 2, ¶ 0017). Ando's method predicts this value, thus enhancing a



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company's chances "to quickly provide excellent products to a market at low prices". (Ando, pg. 1, ¶ 0002)

11. Claims 9 and 12 recite substantially similar limitations to claims 1 and 3 respectively and are therefore rejected using the same art and rationale set forth above.

12. As per claim 11, Dobbins in view of Ando teaches the method of claim 9 as described above. Ando further teaches wherein said estimating said first-to-market time comprises gathering competitive intelligence (*see* discussion *supra* ¶ 6. Expected market share reflects the value of a company's product as compared with its market competitors. In calculating this value, competitive intelligence is gathered.). It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Dobbins to include the teachings of Ando (*see* discussion *supra* ¶ 4).

13. As per claim 13, Dobbins in view of Ando teaches the method of claim 9 as described above. Ando further teaches the step of choosing said product attribute leadership strategy from a finite set of product attribute leadership strategies (*id.* The finite set of strategies lie between being "first to market" at all cost, and deploying an defect-free product at all cost.).

14. As per claim 14, Dobbins in view of Ando teaches the method of claim 13 as described above. Ando further teaches the step of choosing said product segments from a finite set of product segments (*see* discussion *supra* ¶ 4).

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15. As per claim 15, Dobbins in view of Ando teaches the method of claim 14 as described above. Ando further teaches the step of choosing said feature type from a finite set of feature types (*see discussion supra* ¶ 4).

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16. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins in view of Ando as applied to claims 1–3, 5–9, 11–15 above, and further in view of Beyer et al., U.S. Patent No. 6,978,249 [hereinafter Beyer]. (*see* attached PTO-892, reference C)

17. As per claim 4, Dobbins in view of Ando teaches the method of claim 1 as described above. Dobbins in view of Ando does not explicitly teach wherein said selecting said PALS is based on a consumer market demand. Beyer teaches this (Beyer, Fig. 5). It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Dobbins in view of Ando to include the teaching of Beyer because “[a]s the world advances in technology, more and more new products are being introduced to replace older or technologically obsolete products. This tends to shorten product life-cycle for the products that are on the market. However, the shortened product life-cycle of a product adversely affects the profitability of the product. Thus, in order to maximize the profitability of a product with a shortened life-cycle, the manufacturer needs to reduce cost associated with producing and marketing the product. One way of reducing the cost is to minimize inventory of the product. This typically requires accurate forecast or prediction of future demand of the product.” (Beyer, col. 1, lines 12–23)

18. Claim 10 recites substantially similar limitations to claim 4 and is therefore rejected using the same art and rationale set forth above.

*Conclusion*

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

A. Abelow, U.S. Patent No. 5,999,908. (*see* attached PTO-892, reference D)  
(Abelow teaches wherein said product comprises an automobile (Abelow, col. 3, lines 41-44, "How does this invention accomplish this? Today, microprocessors are often embedded into products as controllers. For example, many new cars have a dozen or more microprocessors inside of them."))

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Pats, Esq. whose telephone number is 571-270-1363. The examiner can normally be reached on Monday through Friday, 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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